STATE OF SOUTH CAROLINA
BEFORE THE PUBLIC SERVICE COMMISSION

DOCKET NOS. 2019-185-E and 2019-186-E

South Carolina Energy Freedom Act (H.3659) Proceeding to Establish Duke Energy Carolinas, LLC's and Duke Energy Progress LLC's Standard Offer Avoided Cost Methodologies, Form Contract Power Purchase Agreements, Commitment to Sell Forms, and Any Other Terms or Conditions Necessary (Includes Small Power Producers as Defined in 16 United States Code 796, as Amended) – S.C. Code Ann. Section 58-41-20(A)	)	**INTERVENORS JOHNSON DEVELOPMENT ASSOCIATES AND SOUTH CAROLINA SOLAR BUSINESS ALLIANCE'S PETITION FOR CLARIFICATION, RECONSIDERATION, AND/OR LIMITED REHEARING**

Pursuant to S.C. Code Ann. § 58-27-2150, S.C. Code Ann. Regs. 103-802, 103-803, 103-825 and 103-854, and the South Carolina Rules of Civil Procedure, Intervenors Johnson Development Associates, Incorporated ("JDA") and South Carolina Solar Business Alliance ("SCSBA") (collectively, "Intervenors") respectfully petition the Public Service Commission of South Carolina ("Commission") for Reconsideration and/or Limited Rehearing of Order No. 2019-881(A), dated December 30, 2019 ("Order No. 2019-881(A)" or "the Order"), pertaining to the Avoided Cost Rates, Calculations, Methodologies, and Terms and Conditions for Duke Energy Progress LLC ("DEP") and Duke Energy Carolinas LLC ("DEC," and together with DEP, "Duke" or "the Companies") approved in the above-referenced Docket. As Act 62 requires, the Commission carefully examined Duke's proposed avoided cost rates and methodologies, with the assistance of consultant Power Advisory LLC ("Power Advisory").

Intervenors appreciate the time and attention the Commission has devoted to the issues in this docket. However, with respect to the following critical issues, intervenors respectfully submit that the Commission overlooked and misapprehended the evidence of record, and requests reconsideration of:

1. The Commission's rejection of Intervenors' proposal to add two additional energy pricing periods to the Standard Offer, which is based on a misunderstanding of the evidence and Power Advisory's recommendations on this topic.
2. The Commission's approval of Duke's proposal to calculate avoided energy rates for Large QFs (those not eligible for the Standard Offer) based on a specific solar production profile, which creates serious transparency problems and violates Act 62's requirement to calculate accurate avoided cost rates for solar plus storage QFs.
3. The Commission's adoption of seasonal allocation weightings of 99% / 1% winter/summer for DEP and 70% / 30% winter/summer for DEC, as recommended by the ORS.
4. The Commission's rejection of Intervenors' proposal to incorporate the cost estimate of an aeroderivative CT unit when calculating the avoided capacity rate.
5. The Commission's application of updated inputs for the calculation of avoided energy rates but not for avoided capacity rates for Large QFs.
6. The Commission's rejection of Intervenors' proposals for power purchase agreements ("PPAs") with a duration of longer than ten years.

Solely with respect to the last issue (Intervenors' proposals for contracts with a duration of longer than ten years), if the Commission denies reconsideration Intervenors request limited rehearing so that the parties may introduce additional evidence. Although the Commission granted rehearing instead of reconsideration with respect to this issue in the Dominion Energy South

Carolina ("DESC") avoided cost docket,[1] **the record in this docket contains significantly more evidence in support of Intervenors' PPA proposals**, and this Commission should reconsider its conclusions as to denial of Intervenors' proposals (discussed further below) for longer-term PPAs with additional terms, conditions, and/or rate structures to protect ratepayers in compliance with Act 62.

As discussed more fully below, the net result of the Commission's Order, which fails to fully account for DEC's avoided energy and capacity costs, is the approval of avoided cost rates and a contact tenor that would continue to undermine the competitiveness of utility-scale QF solar in DEC's South Carolina service territory. Further, the Commission's conclusion that Act 62 was *not* designed to encourage renewable energy development "specifically through PURPA" is contrary to the central purpose and structure of Act 62 and, Intervenors submit, against the interest of ratepayers. Order No. 2019-881(A) at 17.

The Intervenors maintain that the clear intent of Act 62 has not been satisfied by the Commission's Order in this proceeding, particularly as it relates to South Carolina's expressed policy of encouraging the development of renewable energy, including the Act's heavy reliance on PURPA, the requirement to consider *both* the cost and benefits of renewable energy to all customers, the directive to reduce the risk placed on the using and consuming public, the requirement to treat small power producers ("SPPs") in a nondiscriminatory manner and to place them on fair and equal footing with the state's investor owned utilities, and the requirement that rates for the purchase of energy and capacity fully and accurately reflect the electrical utility's avoided cost.

---

[1] *Commission Directive*, Docket No. 2019-184-E (Jan. 3, 2020).

The responsible development of solar energy in South Carolina advances consumer preference, increases consumer choice, shields ratepayers from the inherent risks associated with utility-owned generation and investments, promotes local economic development, and furthers the goals of Act 62. The Commission's Order in this proceeding, specifically as it relates to avoided cost rates and contract tenor, would extend the virtual drought of large-scale solar investment in Duke Energy's South Carolina service territories,[2,3] and thus, also eliminates the benefits of solar development that would otherwise accrue to ratepayers and South Carolina, as envisioned by the General Assembly.

In addition to their request for reconsideration and/or rehearing, Intervenors request that the Commission clarify its intent to initiate an integration study in DEC and DEP's service territories, as authorized by Act 62. Intervenors believe it was the Commission's intention to initiate such a study, as it did for DESC, but the Commission's Order is not completely clear in this respect.

---

[2] Intervenors take exception to the Order's reliance on the North Carolina CPRE Program as a substitute for a viable PURPA market in South Carolina and notes that the only reference to competitive solicitation programs is limited to a single sentence within the entirety of Act 62. Section 58-41-20(E)(2). Additionally, although the Order notes that Southern Current successfully participated in CPRE Tranche 1, it fails to appreciate that that Southern Current solar facility was actually located in North Carolina and not in South Carolina. Order No. 2019-881(A) at 17 and 53.

[3] Act 62's requirement that fixed-price QF contracts have a minimum term of ten years was, in part, a reaction to Duke Energy Carolina's and Duke Energy Progress's refusal to offer QFs larger than 2 megawatts a PPA term of longer than five years. Intervenors are unaware of any QF PPAs signed in South Carolina under the five year terms offered by the Duke utilities prior to the passage of Act 62. There is, however, a pending complaint filed with this Commission by a number of SCSBA members that fully outlines the PURPA violations committed by the Duke utilities, which have resulted in no PPAs being signed by QFs in their South Carolina service territories since August of 2017. Public Service Commission of South Carolina Docket No. 2017-281-E.

I. BACKGROUND

A. Applicable Law

Pursuant to S.C. Code Ann. § 58-27-2150, a party may apply to the Commission for a rehearing in respect to any matter determined in the proceeding. "The purpose of a petition for rehearing and/or reconsideration is to allow the Commission the discretion to rehear and/or reexamine the merits of issued orders pursuant to legal or factual questions raised about those orders by parties in interest, prior to a possible appeal." *In re: South Carolina Electric & Gas Company*, Order No. 2013-05 (Feb. 14, 2013). S.C. Code Ann. Regs. § 103-825(A)(4) provides that a Petition for Rehearing or Reconsideration shall set forth clearly and concisely: (a) The factual and legal issues forming the basis for the petition; (b) The alleged error or errors in the Commission order; (c) The statutory provision or other authority upon which the petition is based.

All decisions of the Commission must be supported by substantial evidence in the record. *See Kiawah Property Owners Group v. Public Service Comm'n of S.C.*, 357 S.C. 232, 593 S.E.2d 148, 151 (2004). Substantial evidence is relevant evidence that, considering the record as a whole, a reasonable mind would accept to support an administrative agency's action. The Commission must fully document its findings of fact and base its decision on reliable, probative, and substantial evidence on the whole record. *Id.* The Commission has a heightened duty to make "explicit findings of fact which allow meaningful appellate review of these complex issues." *Seabrook Island Property Owners Assn v. South Carolina Public Service Comm.*, 401 S.E.2d 672, at 674; 303 S.C. 493, at 497 (1991).

This avoided cost proceeding is conducted pursuant to the Energy Freedom Act, as codified by Act No. 62 of 2019 ("Act 62"). Act 62 calls on this Commission to consider and approve "each electrical utility's standard offer, avoided cost methodologies, form contract power purchase agreements, commitment to sell forms, and any other terms or conditions necessary to implement" S.C. Code Ann. § 58-41-20. The Act requires, among other things, that rates for the purchase of energy and capacity from QFs "fully *and accurately* reflect the electrical utility's avoided costs." S.C. Code Ann. § 58-41-20(B) (emphasis added). As in all cases related to the approval of rates, the utility bears the ultimate burden of persuasion that its proposed rates meet the requirements of Act 62 and PURPA. *See generally Utilities Servs. S.C., Inc. v. S.C. Office of Regulatory Staff*, 392 S.C. 96, 106, 708 S.E.2d 755, 761 (2011). Any decisions by the Commission on avoided cost issues shall be just and reasonable to the ratepayers of the electrical utility, in the public interest, consistent with PURPA and the Federal Energy Regulatory Commission's implementing regulations and orders, and nondiscriminatory to small power producers; and shall strive to reduce the risk placed on the using and consuming public. S.C. Code Ann. § 58-41-20(A).

In recognition of difficulties that intervenors have had in evaluating utilities' avoided cost calculations in past proceedings, Act 62 requires, for the first time, that "Each electrical utility's avoided cost filing must be reasonably transparent so that underlying assumptions, data, and results can be independently reviewed and verified by the parties and the commission." *Id.* § 58-41-20(J). Act 62 also mandated that the Commission retain an independent consultant to verify the transparency and accuracy of the data and filings made by the applicant. S.C. Code Ann. § 58-41-20(I). The opinion of that third-party as to the transparency, or lack thereof, must be considered by the Commission in its approval or disapproval of the filings made by the Applicant. *Id.*

B. The Commission's Order

In Order No. 2019-881(A), the Commission rightly rejected some aspects of Duke's avoided cost methodologies, calculations, and proposed rates, but inappropriately accepted others.[4] With respect to the issues of relevance to this Petition, the Order set forth the following rulings:

1. The Commission concluded that Duke's modeling methodology and input assumptions for calculating DEC's and DEP's avoided energy costs were reasonable (Order No. 2019-881(A) at 29).
2. The Commission adopted ORS Witness Horii's recommended seasonal weighting allocations for calculating DEC's and DEP's avoided capacity rates (*Id.* at 30-31).
3. The Commission concluded that Duke has used reasonable "peaker" cost assumptions for the cost of the avoided combustion turbine unit used to quantify the projected capacity value avoided by QF purchases (*Id.* at 30).
4. The Commission held that it is appropriate for DEC and DEP to recognize the QF's actual energy production profile, and to incorporate the most up-to-date inputs under the approved peaker methodology, in calculating a non-Standard Offer PPA QF's avoided energy rates, but did not require DEC and DEP to incorporate updated inputs for avoided capacity rates. (*Id.* at 30-31).
5. The Commission rejected Intervenors' conceptual proposals for PPAs with durations longer than ten years, pursuant to S.C. Code Ann. § 58-41-20(F)(1), finding that Intervenors were obligated to, but did not, enter those proposals into evidence. (*Id.* at 35).

[4] The Commission also ruled on Duke's proposed contract terms and conditions for Qualifying Facilities (QFs) as well as Duke's proposed Notice of Commitment Form. Intervenors do not seek reconsideration of those aspects of Order No. 2019-881(A) and do not discuss them here.

6. The Commission approved the parties' settlement of issues related to the proposed Solar Integration Services Charge ("SISC") but did not expressly state that it intended to initiate an integration study in accordance with S.C. Code Ann. § 58-37-60. (*Id.* at 120-123.)

Commissioner Williams issued a Dissenting opinion noting that Act 62 was intended to create avenues for small power producers and reminding the Commission of the legislature's express intent to promote renewable energy. Commissioner Williams also opined that the contract term of 15 years to 20 years proposed by JDA Witness Chilton was consistent with the Commission's own consultant's recommendation as to what would be necessary to finance projects in South Carolina.

There are several specific issues, discussed below, on which the Commission missed or misapprehended the evidence, such that reconsideration is warranted. However, Intervenors believe that at a high level the Commission's Order fails to heed the core directives of Act 62. For example, in its introduction, the Commission claims that "overpayment risk is reduced when avoided cost rates are lower than historical average" and that "avoided cost rates set by the Commission in this Order are priced recognizing the risk of overpayment by the ratepayer." Order No. 2019-881(A) at 4. The broad claim that when avoided cost rates are set lower than the historical average a reduction of overpayment risk accrues to customers is not supported by PURPA, Act 62, or any evidence in the record. Additionally, the implication that the Commission has adopted historically low avoided cost rates in this docket as a means of "recognizing the risk of overpayment by the ratepayer" is both troubling and inconsistent with Act 62, and suggests that the intent of Act 62 was to *reduce* avoided cost rates below their recent, historically low, levels. There is neither legal nor factual support for this claim. Rather than focus on the relevance of historical avoided cost rates, Act 62 requires that rates for the purchase of energy and capacity fully and accurately reflect the electrical utility's avoided cost. In fact, the recent historical experience with DEC's previously approved avoided cost rates and its short contract tenor has been to eliminate the expansion of QF solar in South Carolina, which is exactly the situation the Generally Assembly sought to remedy with the passage of Act 62 and its reliance on proper PURPA implementation.

Unfortunately, the Order also misapprehends the abundant evidence presented by Intervenors related to the countervailing risk of utility-owned generation, as well as the express requirement within the statute that the Commission consider risk to ratepayers, which is nowhere limited to a risk of overpayment to SPPs. Indeed, as this Commission is aware from Intervenor testimony and firsthand experience, Act 62 was adopted in the wake of the multibillion-dollar nuclear abandonments and the coal ash management debacles that will saddle South Carolina's utility customers with billions of dollars in "overpayments" for decades to come. Likewise, the Commission has failed to recognize or weigh the risk of gas price volatility and its potential to negatively impact customers, where the "historical experience" has actually been documented by Intervenors in this proceeding. Tr. Vol. 1 at 391.11 (Davis Direct).

Intervenors are concerned that in its zeal to protect ratepayers from the risk of "overpayment," the Commission has only succeeded in eliminating solar as a risk-hedge for ratepayers while further exposing them to the substantially larger risks associated with utility-owned generation that the General Assembly sought to mitigate with the unanimous adoption of Act 62.[5]

[5] The record evidence on this issue is discussed in greater detail in Section II.D.2, *infra*.

C. Impact of the Commission's Order on Solar Development in South Carolina

As a consequence of DEC's exceedingly low avoided cost rates, which Intervenors argue herein were approved in contradiction of Act 62's requirements that avoided cost rates fully and accurately reflect the utility's avoided cost, large scale solar projects sited within DEC service territory will not be financeable. Duke Energy's competitive procurement program for solar in North Carolina is resulting in 20-year contracts at about $38 per MWh. Georgia's competitive procurement for solar is resulting in 30-year contracts at about $36 per MWh. DEC's approximately $30 per MWh avoided cost rate at ten years makes it a non-starter for solar financing. PA Report at 33. It is important to also recognize that even if significantly longer contract options were to be made available, DEC's avoided cost rates, as approved by the Commission in Order No. 2019-881(A), are not financeable. If the solar industry could build projects at those rates in the Southeast, then the Georgia and North Carolina competitive solicitation programs would be delivering projects at those costs.

II. PETITION FOR RECONSIDERATION AND/OR LIMITED REHEARING

Intervenors respectfully submit that the Commission should partially reconsider the following aspects of Order No. 2019-881:

1. The Commission's rejection of SBA Witness Burgess's proposal to require DEC to incorporate two additional pricing periods for avoided energy rates, to better reflect the system value of QF energy.
2. The Commission's approval of Duke's proposal to calculate avoided energy rates for Large QFs based on a set production profile.
3. The Commission's adoption of seasonal allocation weightings of 99% / 1% winter/summer for DEP and 70% / 30% winter/summer for DEC, as recommended by

the ORS, instead of the seasonal allocations proposed by SBA Witness Burgess, of 42% / 58% winter/summer for DEC and 96% / 4% winter/summer for DEP.

4. The Commission's rejection of Intervenors' proposal to factor in the cost of an aeroderivative CT unit when calculating the avoided capacity rate.
5. The Commission's application of updated inputs for the calculation of avoided energy rates but not for avoided capacity rates for Large QFs.
6. The Commission's rejection of Intervenors' proposals (submitted in compliance with S.C. Code Ann. § 58-41-20-(F)(1)) for power purchase agreements with a duration of longer than ten years.

If the Commission declines to reconsider its rejection of Intervenors' proposals for PPA terms with a duration longer than ten years, Intervenors request, in the alternative, that the Commission grant limited rehearing and allow the presentation of additional evidence by the parties on that issue. Intervenors submit that rehearing would not be appropriate on any other issue, both because sufficient evidence exists in the record to justify the request for reconsideration, and also because it would be incredibly burdensome for Intervenors to re-litigate those issues at this time. As the Commission is aware, there are a number of Act 62-related dockets and other important proceedings that are or will soon be underway; Intervenors (unlike Duke, which can pass the costs of its legal fees on to ratepayers) lack the resources to litigate this case again. To impose the burden of a complete rehearing on the Intervenors would be inconsistent with the directives of Act 62, one of which is the "fair and equal" treatment of small power producers in relation to investor-owned utilities.

A. Capital and shareholder bias in avoided cost proposals

The Commission's rulings on avoided cost issues rely on the premise that Duke's rates do not reflect an anti-competitive bias against solar QFs. Order No. 2019-881(A) at 28-29.[6] As discussed extensively in testimony and during the hearing (and not disputed by Duke), DEC has a fiduciary duty to its shareholders, and the Company earns a return for those shareholders by deploying capital investments in its system. Duke Witness Brown, on cross-examination, gave a detailed account of the priority and considerations Duke must make for its shareholders in generating revenue through self-build projects yet this Order fails to make mention of that. Tr. Vol. 1 at 177. Alternatively, the Company does not make a return for shareholders on its purchase of QF solar output. Tr. Vol. 2 at 812-813. Whether or not DEC's avoided cost calculations reflect a bias against QFs, the plain reality is that the business model of vertically integrated monopoly utilities inherently results in a capital or shareholder bias. The term "bias" in this instance is not intended to be a pejorative term but simply a description of the economic incentives that align DEC with its shareholders. Intervenors testified to the "mystifying" nature of DEC's witnesses' denial of the transparent and well understood capital and shareholder bias that exists under the business model of an <u>investor-owned</u> utility. Tr. Vol. 2 at 792. Certainly, the Commission takes into account this capital bias in general rate cases, where the utility is understood to be an advocate for maximizing shareholder profit and is not viewed as a consumer advocate, as DEC fancies itself in this proceeding. A clear example of this tension between utility shareholders and ratepayers, as pointed out in Intervenor testimony, is the Company's proposal to earn a return on its investment

---

[6] Although a search of the hearing transcripts shows no use of the phrase "anti-competitive bias," the Order has adopted this phrase to describe Intervenors' testimony related to the capital or shareholder bias that exists for vertically integrated monopoly utilities like Duke Energy. Order No. 2019-881(A) at 46.

in the abandoned Lee Nuclear Facility, whereby it characterized the Commission's denial of these profits as "punitive and arbitrary." Tr. Vol. 2 at 802.15 (Davis Surrebuttal).

In its Finding of Fact related to "anti-competitive" bias, the Commission relies, in part, on the claim that Duke made only two adjustments to DEC's 2019 integrated resource plan, both of which benefited solar. Order No. 2019-881(A) at 28. This relies on the dubious premise that the integrated resource plan itself is perfectly objective and not biased towards additional utility generation. Importantly, although the DEC 2019 integrated resource plan is an update of the DEC 2018 integrated resource plan, no action was ever taken by this Commission to approve the DEC 2018 integrated resource plan, nor has the 2019 integrated resource plan been approved by this Commission. It should also be noted that DEC has not yet filed an Act 62 compliant integrated resource plan, and it remains to be seen whether DEC's future integrated resource plans are biased towards utility-owned generation. It is telling, however, that the current 2019 integrated resource plan does not add any solar resources to its 15-year planning horizon that are not already required under North Carolina statute. The Order also characterizes the North Carolina CPRE Program as evidence of DEC's "promotion of competition in the future development of solar" and its inclusion of statutorily mandated solar procurement in its integrated resource plan as further evidence of a non-bias when it comes to treatment of QF solar in South Carolina. *Id*. This logic belies a number of important facts: The North Carolina CPRE Program is not a voluntary program Duke is "promoting," but a program mandated by North Carolina statute that provides direct financial benefits to the Company through project ownership opportunities not available under PURPA, as well as an ability to rate base interconnection network upgrade costs that provide a return on equity to shareholders. Tr. Vol. 2 at 802.5 (Davis surrebuttal). Finally, the Order cites the inability of solar QFs to displace all of DEC's resource needs, such as dispatchable load-following generation, as evidence against anti-competitive bias. Order No. 2019-881(A) at 29. This finding suggests that Intervenors have implied solar QFs can meet all of DEC's system needs, but this was not a claim advanced by Intervenors. Importantly, this finding is narrowly focused on solar only QFs and once again fails to account for the performance characteristics of solar with storage facilities.

In its Order, this Commission found that two adjustments to DEC's avoided capacity calculations were appropriate based on the testimony of ORS Witness Horii: The use of a 20-year economic life for a CT Unit, rather than a 35-year life as proposed by DEC, and a change in seasonal capacity allocation that collectively increased DEC's Summer On-Peak avoided capacity rate by over 380%. Although the Order characterizes these changes as "small," Intervenors submit that these changes were actually substantial and that additional adjustments are warranted upon reconsideration. Order No. 2019-881(A) at 52. Regardless of whether the original DEC assumptions related to the economic life of a CT Unit or seasonal capacity allocation were actually a consequence of capital or shareholder bias is irrelevant to the fact that DEC's proposed rates were inaccurate and significantly lower than those proposed by ORS and adopted by the Commission.

B. Avoided Energy Costs

In its Order, the Commission approved Duke's proposed avoided energy rates for the Standard Offer, as well as the underlying calculations, methodologies, and rate design. Order No. 2019-881(A) at 29. Intervenors disagree with several aspects of the Commission's ruling on these issues, but there are two issues in particular on which the Commission's decision misapprehended the evidence, failed to address key issues, and/or is contrary to Act 62. First, the Commission's rejection of SBA Witness Burgess's proposal to add two additional energy pricing periods to the DEC Standard Offer misunderstood the nature of Mr. Burgess's proposal as well as Power

Advisory's recommendation on it. And second, the Commission's approval of Duke's proposal to calculate avoided energy rates for Large QFs (those not eligible for the Standard Offer) based on a specific solar production profile creates serious transparency problems, and also violates Act 62's requirement to calculate accurate avoided cost rates for solar plus storage QFs. The Commission should reconsider its decision on these issues.

1. The Commission's rejection of SBA Witness Burgess's proposed alternative pricing periods is based on a misunderstanding of the evidence and of Power Advisory's recommendation.

The Commission's order rejecting SBA's proposed alternative pricing periods is premised on a fundamental misunderstanding of both Mr. Burgess's critique and Power Advisory's recommendations and should be reconsidered.

Duke's proposed avoided energy rates included nine annual pricing periods, which the Companies characterized as "more granular" and "better aligned with the actual cost of generation during each period." Power Advisory Report at 15-16 (quoting DEC/DEP Response to Power Advisory Second Set of Interrogatories, #2-3). SBA Witness Burgess did not object to Duke's proposal to provide more granular pricing periods. However, he testified that some of Duke's proposed pricing periods would result in rates that would not accurately represent the company's actual system costs, because they lumped together hours when the system cost was high with hours when the system cost was low. Tr. Vol. 1 at 382.38 (Burgess Direct). In particular, Mr. Burgess pointed to DEC's proposed "summer off-peak" period, which is 14 hours long and lumps in overnight hours when actual system costs are low with daylight hours (up until noon), when system costs can be much higher. *Id.* DEC does the same with the shoulder season off-peak period, which groups overnight hours with daytime hours extending to mid-afternoon.[7] Mr. Burgess testified

[7] The following analogy, while not perfect, may illustrate the problem. Imagine that, starting in 2020, Clemson University decided to compensate its head football coach based solely on the

that as a result, DEC's pricing periods "undervalue[] the true daytime cost," which results in avoided cost rates that under-compensate QFs. Id. at 382.40. Mr. Burgess proposed as a remedy that the Commission simply require DEC to split these over-long pricing periods up and add two more pricing periods (in addition to the nine already proposed) to more accurately reflect the system's avoided cost.

Duke Witness Snider mischaracterizes Mr. Burgess as being "critical of the pricing hours recommended by Duke in its proposed avoided energy rate design basically because the pricing hours fail to align with the hours of maximum solar generation," and arguing for "a separate pricing period so that the peak hours better coincide with solar generation operations." Tr. Vol. 2 at 630.38 (Snider Rebuttal). Mr. Snider goes on to articulate several general principles of rate design (which Mr. Burgess did not disagree with), such as that pricing periods "should reflect the Companies' cost of service and system needs"; "must be granular enough to provide clear price signals regarding the future value of generation to QFs, but also not be so specific that the defined pricing periods shift with the smallest movement in forecasted inputs"; and must "be administratively manageable to ensure accuracy in billing while minimizing potential confusion for QFs caused by frequent price changes." *Id.* at 630.39-40.

---

team's annual win percentage, averaged over some number of years. The team's *average* annual winning percentage since 2000 is about 73%. However, it would be inappropriate to use the average percentage over that entire period, which includes eleven and a half seasons under Dabo Swinney (82% win percentage) and eight and a half under Tommy Bowden (62% win percentage). It would be both fairer to the coach and also more accurate to average over a term that more closely aligns with the coach's tenure, rather than penalizing Swinney by factoring in the Bowden years. (Though it would also be inaccurate and unfair to leave out the Swinney's first three full seasons, during which the team won only 61% of the time.) By the same token, it is both inaccurate and also unfair to solar QFs, in establishing pricing periods, to average higher-cost hours when solar generally is producing with lower-cost hours (including even some overnight hours) when solar is not producing.

But at no point does Mr. Snider dispute Mr. Burgess's assertion that DEC's overlong pricing periods inaccurately average low-cost hours with high-cost hours. ***Nor does he even try to refute Mr. Burgess's statement that the proposed additional pricing periods would result in a more accurate reflection of the system's avoided cost.*** Finally, Mr. Snider does not testify that Intervenors' proposed pricing structure does not meet the criteria Mr. Snider advocates for the selection of pricing periods. Nor does any other evidence in the record contradict Mr. Burgess's testimony that his proposed pricing periods are more accurate and appropriate than those proposed by DEC.[8]

Power Advisory agrees with Mr. Burgess's view that "The construction of these [pricing] periods is important and the establishment of broad periods that are composed of hours with significantly varying prices can adversely affect the economic efficiency of these periods[.]" Power Advisory Report at 16. Power Advisory further agrees that "bias can occur if price levels within a pricing period vary significantly and a specific technology (e.g., solar) has a disproportionate share of its output in a portion of the pricing period with a higher or lower value." Id. at 17. Although Power Advisory did not recommend that DEC's proposed pricing periods be rejected, the consultant did find that the proposed pricing periods would yield inaccurate pricing.

The Commission, in its Order, appeared to applaud the development of more granular avoided cost rates by the Duke. Order No. 2019-881(A) at 73. It also agreed with the general

[8] The Commission characterizes Mr. Snider as "object[ing] to SCSBA Witness Burgess's alternative avoided energy rate design as improperly focused on the specific operating characteristics of solar QFs while shifting compensation away from hours when the Companies and their customers see the most value for the energy delivered by the QF." Order No. 2019-881(A) at 72 (citing Tr. Vol. 1, p. 630.34). Here, too, the Commission misunderstands the testimony. In that passage Mr. Snider was <u>not</u> contesting SBA's proposal to add two more pricing periods. Rather, he was arguing in support of Duke's proposal to use a project-specific production profile for Large QFs, claiming that this would better reflect the production profiles of solar generators.

principle that energy rate design "should reflect the Companies' cost of service and system needs[.]" *Id.* at 74. These findings are supportable by the record. But the Commission went on to reject the SBA's proposed pricing periods, based on the understanding that they were "specific to solar QFs" and "proposed for the purpose of increasing a solar QF's revenue" above the utility's avoided cost. *Id*. The Commission unfortunately failed to appreciate that Mr. Burgess's criticism of DEC's proposed pricing periods was not that they under-compensated solar QFs (though they did do that), ***but that the pricing periods result in rates that do not accurately capture the utility's avoided cost***. Nor were SBA's proposed rates "specific to solar QFs." As Mr. Burgess testified, "While [SBA's] proposal may be better for solar QFs, it is intended to better reflect the value of energy delivered from any QF resource." Tr. Vol. 2 at 787.17 (Burgess Surrebuttal). In any event, the Standard Offer is available to non-solar QFs, meaning that the proposal was necessarily not specific to solar QFs.

Based on these misconceptions, the Commission rejected Intervenors' proposal, concluding that "there is not sufficient evidence demonstrating that implementation of this additional/modified rate design proposal is appropriate for the Standard Offer or cost beneficial to Duke's customers." Order No. 2019-881(A) at 74. Because it misunderstood Intervenors' critique of DEC's proposed pricing periods, as well as SCSBA's proposed additional pricing periods, as focusing on the production hours and compensation of solar QFs, the Commission should reconsider its decision on DEC's avoided energy rates.

In addition, in basing its decision on whether SBA's proposal was "cost beneficial to Duke's customers," the Commission also ran afoul of PURPA and Act 62. Under those statutes, the relevant question is not whether SBA's proposal would reduce costs to Duke's customers, but whether it would "fully and accurately reflect the electrical utility's avoided costs." S.C. Code Ann. § 58-41-20(B)(1).

And the uncontested evidence in the record showed that Intervenors' proposed pricing periods would result in rates that more fully and accurately reflect DEC's actual avoided costs. Duke did not dispute this testimony and Power Advisory agreed with SBA's position that Duke's proposed pricing periods would result in rates that were inaccurate. The Commission failed to address (or even mention) this evidence in its Order, which provides further basis for reconsideration.

2. The Commission's approval of Duke's proposed approach to calculating Large QF avoided energy rates is contrary to Act 62 and creates serious transparency problems.

The Commission also should reconsider its approval of Duke's proposal to use a project-specific production profile to calculate avoided energy rates for Large QFs not eligible for the standard offer. The Commission reached this conclusion over SBA's objection that this would result in a total lack of transparency as to Large QF avoided cost rates, and also would not provide for rates that can accurately reflect the avoided cost of energy produced by solar plus storage facilities, as required by Act 62.

Duke's proposal is to calculate avoided energy rates for Large QFs using not the flat 100 MW production profile employed in the Standard Offer, but a project-specific production profile. Duke does not provide any indication of how this might impact rates, nor does it propose any specific rate structure (*i.e.*, pricing periods) for Large QF contracts, as it does for the Standard Offer. SBA Witness Burgess testified that this would result in decreased transparency regarding Duke's methodological choices and would also be inappropriate for solar plus storage QFs, which "do not necessarily adhere to a fixed production profile." Tr. Vol. 1 at 382.32 (Burgess Direct). Mr. Burgess advocated making the technology-neutral rate structure developed for the Standard

Offer available to Large QFs. It is important to understand here that Intervenors do **not** object to Duke's updating of the inputs to its avoided energy cost calculation methodology, such as fuel prices and updates to Duke's resource plan, so long as they are transparent and consistent with the inputs applied in the avoided capacity cost calculations (as discussed below).

The Commission rejected SBA's proposal, holding in relevant part that "it is appropriate for DEC and DEP to take into account the production profile of the facility when calculating avoided cost rates for large, non-standard PPA QFs." Order No. 2019-881(A) at 81-82. The Commission's decision relied in large part on the fact that PURPA *allows* consideration of "the supply characteristics of a particular facility" in the calculation of avoided cost rates – a fact that SBA does not dispute. Order No. 2019-881(A) at 79-80. The Commission also took the view that project-specific avoided cost rates would necessarily be more accurate than technology-neutral avoided cost rates. *Id.* at 80.[9] Although this may be true in theory, there is little or no record evidence to support the conclusion that this will be true in practice, as Duke calculates project-specific avoided cost rates. And it is indisputably true that Duke's proposed approach will not provide accurate energy rates or send appropriate "price signals" to solar plus storage rates, as required by Act 62.

There are a few reasons for this. First, the Commission appears not to have appreciated how different Duke's application of the peaker methodology for the Standard Offer is from its application to Large QFs. The Commission's Order states that "SCSBA Witness Burgess[]

[9] The Commission also relied on Power Advisory's recommendation, but the consultant's report does not provide any analysis of this issue, simply stating in conclusory fashion that "the avoided cost rate will reflect the specific operating profile of the large QF and result in a more reliable avoided cost rate." Power Advisory Report at 18. Because Power Advisory did not cite any evidence or rationale to support this conclusion, it should be afforded little weight by the Commission.

assert[s] that a large, non-Standard PPA solar QF should have the same production profile as a generic Standard Offer QF in calculating avoided energy rates[.]" Order No. 2019-881(A) at 81. But the Standard Offer is not based on a generic solar production profile. If it were, then the parties and the Commission would have at least some idea what the resultant Large QF rates would look like, because the production profile of any solar Large QF (without storage) will bear at least some resemblance to a generic solar profile.

Rates for the Standard Offer, however, are calculated based on a flat 100 MW "no-cost" profile, not a solar-specific profile. Tr. Vol. 2 at 630.37 (Snider Rebuttal). Duke's rate calculations are based on a complex computer model, and the use of any solar-specific production profile instead of a flat 100 MW profile could significantly impact the results of that modeling. Mr. Burgess testified that this is fundamentally, a different methodology than that used for the Standard Offer methodology. Tr. Vol. 1 at 382.30 (Burgess Direct).

However, neither the parties nor the Commission know what the impacts of this change might be, because Duke did not provide indicative rate calculations based on a project-specific solar profile. Tr. Vol. 1 at 383.30-31 (Burgess Direct). And Large QFs seeking PPAs with Duke will have only very limited opportunities to understand or interrogate those rates, leaving them at a huge disadvantage to Duke in negotiating PPAs.[10]

[10] With regard to Large QF avoided cost rates, Act 62 provides that "In the event that a small power producer and an electrical utility are unable to mutually agree on an avoided cost rate, the small power producer shall have the right to have any disputed issues resolved by the commission in a formal complaint proceeding." S.C. Code Ann. § 58-41-20(C). Although the General Assembly clearly contemplated that QFs should some opportunity to challenge Duke's rate calculations, requiring the filing of a Complaint (before a QF can even obtain information about the utility's underlying calculations) is a very high bar, making it imperative that the Commission promote maximum transparency in *this* proceeding.

Even in this proceeding, where the parties have had the opportunity to explore factual issues in discovery and by cross-examination, there are still significant questions about Duke's avoided cost modeling, such as the impact of negative pricing periods on avoided energy rates, and the impact of Duke's selection of pricing periods (in fact, it is unclear what pricing periods, if any, Duke proposes to utilize for Large QFs). Allowing Duke to so fundamentally change its methodology for Large QFs will result an almost complete loss of transparency, in violation of Act 62's policy of improving the transparency of avoided cost calculations and promoting the fair and equal treatment of QFs. S.C. Code Ann. § 58-41-20(B), (J).

Duke's proposal to use a project-specific production profile for Large QF energy rates also creates a huge problem for solar plus storage facilities, which the Commission simply ignores in its Order. SBA Witness Burgess testified that this technology-specific approach to calculating avoided energy rates would not be appropriate for solar QFs that install energy storage, because such QFs are not tied to a particular production profile. Tr. Vol. 1 at 382.32.

Duke Witness Snider conceded on rebuttal that Mr. Burgess was correct, but did not change his company's position that rates for a Large QF incorporating solar and storage would be calculated based on a set production profile.[11] The problem with this is that assuming a specific production profile for a solar plus storage facility ignores the facility's ability to alter its production profile, and provide power to the system when it is of the most value to customers. A rate based

[11] Mr. Snider did testify that "Duke agrees that a QF that designs its facility to integrate energy storage and commits to operate its facility in a controlled manner that does not reflect the generator profile of an uncontrolled and intermittent solar QF should be eligible for avoided energy rates calculated using a load-profile that reflects the characteristics of the storage device utilized by the QF." Tr. Vol. 2 at 630.34. But Mr. Snider is only agreeing with himself here. Mr. Burgess did not offer any testimony about avoided energy rates for a "controlled" solar facility, which is one that contractually agrees to surrender some of its PURPA rights and give Duke control over dispatch of the facility.

on an assumed production profile does not "provide a reasonable and consistent price signal to QFs, encouraging them to align their generation with the time periods that have most value to customers," which the Commission deemed an important feature of the Duke's Standard Offer rates. Order No. 2019-881(A) at 75. It is also inaccurate, and therefore violates Act 62's requirement that avoided cost rates must "fairly account for costs avoided by the electrical utility" for "small power producers ***including those utilizing energy storage equipment***." S.C. Code Ann. § 58-41-20(B)(3).

In addition to relative transparency, the virtue of the Standard Offer pricing structure proposed by Mr. Burgess is that it provides clear price signals to solar plus storage QFs, unlike the plan for calculating energy rates proposed by Duke for Large QFs. Accordingly, the Commission should reconsider its approval of Duke's proposed approach to calculating avoided cost rates for Large QFs, and instead approve SBA Witness Burgess's proposal that Large QFs – and in particular Large QFs that include energy storage – be allowed to contract at rates based on the Standard Offer pricing periods.

To be clear, SBA's objection to Duke's proposal does not turn on whether avoided energy rates for Large QFs would be higher or lower under Duke's proposal – SBA does not know what the impact on rates would be, and Duke claims not to know either. Tr. Vol. 1 at 382.30:15-31:2 (Burgess Direct); Tr. Vol. 2 at 630.37 (Snider Rebuttal) ("these updates are transparent inputs to the model that can have the effect of raising the avoided cost value paid to the QF with equal likelihood as lowering the value paid to the QF."). Nor does SBA maintain it is illegal under PURPA to consider the production characteristics of a specific QF.

Rather, SBA's fundamental concern is that this would result in a complete lack of transparency as to Large QF avoided cost rates, putting developers at a severe disadvantage in negotiating with Duke on rates and significantly undermining Act 62's policy of improving transparency in avoided cost rates, calculations, and methodologies. S.C. Code Ann. § 58-41-20(J).

3. Request for ruling on reconsideration

For the reasons stated above, Intervenors request the Commission partially reconsider its decision on avoided energy rates, and: (1) require Duke to recalculate avoided energy rates for the Standard Offer using the two additional pricing periods called for by SBA Witness Burgess; and (2) order that Large QFs, including those that incorporate energy storage technology, are entitled to contract at rates calculated using the technology-neutral avoided energy pricing structure provided in the Standard Offer (subject to the modifications proposed by Intervenors herein).

C. Avoided Capacity Costs

In its Order, the Commission issued a number of rulings on Duke's proposed avoided capacity rates, calculations, and methodologies. The Commission concluded generally that the use of the peaker methodology was reasonable for calculating avoided capacity rates. Order No. 2019-881(A) at 30. With respect to Duke's proposed avoided capacity costs, the Commission ruled that DEC and DEP had appropriately identified the first year of avoidable capacity need as the year identified in their 2019 Integrated Resource Plans ("IRPs"), despite the fact that the Company had announced the accelerated retirement of additional coal-fired units prior to the dates scheduled in the IRP. *Id*. at 30. The Commission accepted DEC's and DEP's use of a combustion turbine ("CT") unit to quantify the projected capacity value avoided by QF purchases. *Id*. The

Commission also rejected DEC's and DEP's proposed seasonal allocation weightings and adopted the seasonal allocations proposed by ORS Witness Horii. *Id*.

As discussed below, although the Commission was correct to reject certain aspects of Duke's avoided capacity calculations, the Commission's ruling was in error for the following reasons. First, the Commission inappropriately adopted ORS Witness Horii's recommended seasonal weighting allocations of 99% / 1% winter/summer for DEP and 70% / 30% winter/summer for DEC. SCSBA Witness Burgess's recommended seasonal allocation weightings of 96% / 4% winter/summer for DEP and 42% / 58% winter/summer for DEC more accurately reflect the Companies' seasonal allocation weightings as supported by evidence in the record. Second, the Commission inappropriately rejected the recommendation of SCSBA Witness Burgess to factor in the EIA cost estimate of an aeroderivative CT unit when calculating the avoided capacity rate and instead adopted the use of Duke's proposed F-Frame CT unit. Finally, with respect to avoided capacity rates for Large QFs not eligible for the standard offer rate, the Commission held that the Companies should incorporate the updated resource plans when calculating the avoided *energy* rates, but the Commission failed to specify that the Companies should also incorporate updated resource plans when calculating the avoided *capacity* rates.

1. **The Commission should reconsider its decision to adopt the seasonal allocation weightings recommended by ORS Witness Horii and instead adopt the weightings recommended by SCSBA Witness Burgess.**

The Companies proposed seasonal allocation weightings for DEP and DEC of 99% / 1% and 90% / 10 % winter/summer, respectively. This proposal was based primarily on Resource Adequacy studies conducted by Astrapé Consulting ("Astrapé"), which calculated the seasonal LOLE for DEC and DEP and allocated capacity costs based on the relative LOLE in each time period. ORS Witness Horii, SCSBA Witness Burgess, and CCL/SACE Witness Wilson all critiqued Duke's proposed seasonal allocation weightings. Witness Horii's primary critique of

Duke's seasonal allocation weightings related to the assumptions regarding the amount of solar capacity to be included in the analysis. Tr. Vol. 2 at 525.14-17 (Horii Direct); 528.9-10 (Horii Surrebuttal). Mr. Horii recommended that the Companies not include the CPRE Tranche 4 capacity in its calculation, which would result in the season allocation recommended by Mr. Horii: 99% / 1% winter/summer for DEP and 70% / 30% winter/summer for DEC. *Id*.

CCL/SACE Witness Wilson also critiqued the underlying Astrapé Resource Adequacy studies that formed the basis of the Companies' seasonal allocation weightings. Tr. Vol. 2 at 495.4-8. Mr. Wilson criticized the studies' consideration of extreme winter loads based on an unjustified extrapolation of the relationship between cold temperatures and winter loads; the economic load forecast uncertainty incorporated into the studies' analysis; assumptions regarding future winter demand response capacity; and assumptions regarding operating reserves during brief load spikes on extremely cold winter mornings. Hearing Exhibit 14 (Wilson Direct Exhibit B) at p. 3. Mr. Wilson also provided evidence that by using weather and load data from 1997-2016, 75% of the load loss hours are in the summer and only 25% in winter for DEP, and 92% of the load loss hours are in the summer and only 8% are in winter for DEC. *Id*. at 11-12. Mr. Wilson concluded that "The data strongly suggest that if the [flaws identified in the study] were corrected, the resource adequacy risk would still be weighted toward summer on both systems." *Id*.

SCSBA Witness Burgess identified additional flaws in the Astrapé Resource Adequacy studies and recommended that, instead, the seasonal capacity allocation be developed based on historical load patterns, which he considered to be a more reasonable approach and one that would avoid the issues identified in the Astrapé studies. Tr. Vol. 1 at 382.48-49 (Burgess Direct). In response to rebuttal testimony by Duke, Mr. Burgess also developed a revised analysis in his surrebuttal testimony to more reasonably calculate the Companies' seasonal allocation weightings.

Mr. Burgess's revised analysis resulted in a seasonal allocation weighting of 96% / 4% winter/summer for DEP and 42% / 58% winter/summer for DEC. Tr. Vol. 2 at 787.23 (Burgess Surrebuttal).

Power Advisory acknowledged and discussed the critiques of Witnesses Horii, Burgess, and Wilson, first agreeing with Mr. Horii that avoided costs should be calculated based on current solar levels and recommending the adoption of Mr. Horii's proposed seasonal allocation weightings. Power Advisory Report at 26. Power Advisory also stated that "Mr. Wilson's evidence is compelling that Duke's approach to modeling the impact of extreme temperatures is problematic" and that Mr. Burgess's proposed methodology "represent[s] a reasonable check on the LOLE modeling." *Id*. at 27.

The Commission's Order stated that it agreed with ORS Witness Horii "that avoided cost should be calculated based on current conditions." Order No. 2019-881(A) at 112. However, the Commission entirely ignored the analysis provided by SCSBA Witness Burgess and CCL/SACE Witness Wilson critiquing the underlying Astrapé Resource Adequacy studies and supporting the alternative seasonal allocation weightings proposed by SCSBA Witness Burgess in this proceeding. Substantial evidence in the record supports the finding that the Astrapé Resource Adequacy studies included material flaws that lead to inaccurate seasonal allocation weightings. Although ORS Witness's Horii's analysis corrected for one of those flaws (the solar capacity assumption), it did not address the multiple other flaws identified by CCL/SACE Witness Wilson and SCSBA Witness Burgess. Thus Mr. Horii's recommended seasonal capacity allocation is fundamentally flawed in that it is based on Duke's unsupportable methodology.

Given the evidence in the record, the Commission should reject the Resource Adequacy studies for the purposes of calculating avoided capacity rates in this proceeding and require the

Companies to revise the Resource Adequacy studies consistent with the recommendations of Witnesses Wilson and Burgess.[12] Adopting the seasonal allocation weightings proposed by ORS Witness Horii – which incorporate the flaws in the Resource Adequacy Study – will substantially undervalue the capacity value that solar facilities provide to the Companies at times when solar is generating. Witness Burgess's recommended seasonal allocation weightings of 96% / 4% winter/summer for DEP and 42% / 58% winter/summer for DEC more accurately reflect the Companies' seasonal allocation weightings as supported by evidence in the record, and the Commission should adopt these weightings at this time.

2. The Commission should reconsider its decision to rely exclusively on an F-Frame CT unit for the calculation of avoided capacity rates.

SCSBA Witness Burgess recommended that rather than relying on an F-Frame CT unit to calculate avoided capacity costs, which represented the lowest-cost available peaking unit included in EIA's predetermined list of potential generation technologies, the Company should incorporate the cost of an aero-derivative CT unit, which the Companies may be more likely to choose as their next marginal unit based on its flexibility and ability to meet both peaking and ramping needs. Tr. Vol. 1 at 382.55 (Burgess Direct). Rather than incorporating the full cost of an aeroderivative CT unit listed in the EIA data ($1,680/kW), Mr. Burgess recommended a value of $1,178/kW which represented a midpoint between the aeroderivative unit and the F-Frame CT unit recommended by Duke. *Id*. at 382.58.

---

[12] Intervenors also note that during the evidentiary hearing CCL/SACE Witness Wilson discussed with the Commission at length his experience with the development of resource adequacy studies of the type utilized by the Companies. Mr. Wilson provided reasoned guidance as to the type of iterative stakeholder process that is followed in other jurisdictions in order to develop studies of this type. Intervenors are generally supportive of this type of process for the future development of studies of this type which have substantial impacts on electric rates in South Carolina.

Power Advisory disagreed with SCSBA Witness Burgess and concluded that while it "may be true" that an aeroderivative peaker is more likely to be representative of the resource that Duke adds in the future, it is not the appropriate avoided cost benchmark. Power Advisory Report at 19. Power Advisory also suggested that if the companies were to construct such an aeroderivative peaker for the purpose of integrating solar resources, the incremental cost of such a unit could be recovered by solar QFs through a solar integration charge. *Id*. at 20.

The Commission rejected the recommendation of SCSBA Witness Burgess and agreed with Duke and Power Advisory that "there is simply no basis to conclude that DEC or DEP are planning to construct aero-derivative CTs in the current 15-year planning period." Order No. 2019-881(A) at 102. The Commission also stated that "the increased costs of constructing aero-derivative CTs would be caused by the intermittency and volatility of solar. It would therefore be inappropriate to pay solar generators based upon the higher capital cost of the aero-derivative CT in order to provide the capabilities needed to manage the operational challenges that intermittent and uncontrolled must take energy would be causing." *Id*.

The Commission erred in multiple respects in reaching its conclusions. As an initial matter, the Commission's finding that Duke's current IRP does not include plans to construct an aero-derivative CT disregards the fact that the IRP upon which the Companies rely has never been reviewed or approved by the Commission pursuant to the specific requirements of Act 62. As the Commission is aware, Act 62 requires the Commission to conduct a proceeding on the Companies' proposed IRPs, including the opportunity for intervention and discovery by interested parties. S.C. Code Ann. § 58-37-40(C)(1). After conducting the requisite review, the Commission shall approve the Companies' IRP only if the Commission determines that the proposed IRP represents the most reasonable and prudent means of meeting the electrical utility's energy and capacity needs as of the time the plan is reviewed. *Id*. § 58-37-40(C)(2).

Duke's 2019 IRP Update, which Duke relied upon in this proceeding, was prepared for the North Carolina Utilities Commission and has not been reviewed by this Commission pursuant to the requirements of Act 62. Therefore, the Commission's reliance on an unapproved planning document to make the definitive finding that "there is simply no basis to conclude that DEC or DEP are planning to construct aero-derivative CTs in the current 15-year planning period" is misplaced. While Intervenors acknowledge that the Commission's review of utility IRPs pursuant to Act 62 will occur in forthcoming proceedings, the Commission should not consider the North Carolina IRP Update to be definitive as to the question of the appropriate marginal unit to be used in the calculation of avoided capacity costs. To the contrary, due to the uncertainty regarding the Duke IRPs that will be approved in South Carolina in compliance with Act 62, SCSBA Witness Burgess's recommendation that the Commission adopt a "midpoint" value of $1,178/kW between the listed cost of an F-Frame CT unit ($667/kW) and an aeroderivative CT unit ($1,680/kW) is appropriate and reasonable.

As discussed by SCSBA Witness Burgess, Duke Witness Snider, and Power Advisory, aeroderivative CTs provide additional operating flexibility, ramping capability, and other ancillary services. These additional operational capabilities accrue to the benefit of all Duke ratepayers. Contrary to the assertions of Duke and Power Advisory, the decision to construct an aeroderivative CT unit would not solely serve as a means of integrating solar QFs, but would instead provide a valuable asset that would serve a variety of operational and economic purposes.

As Duke Witness Brown described in rebuttal testimony, Duke touts its ongoing competitive procurement of renewable energy, through which Duke recently "procured approximately 550 MW of new solar capacity for 20-year fixed price contract terms at a projected savings relative to avoided cost of approximately ***$261 million*** over the 20-year term of PPA." Tr. Vol. 2 at 621.17 (Brown Rebuttal) (emphasis in original). Duke is currently preparing to solicit bids for an additional 680 MW of new renewable energy resources to be constructed between now and 2023, and an additional 650 MW of new renewable energy resources planned over the next few years under the CPRE program. *Id*. at 621.18. Contrary to the assertions of Duke, the Companies are planning for significant additional renewable energy generation as part of its future resource mix, **separate and apart from any solar QFs that contract under PURPA in South Carolina**. The use of more efficient and more flexible generation assets such as aero-derivative units would facilitate the transition to a smarter energy future, consistent with Duke's own stated plans.[13] Therefore, based on the value that more flexible units like an aero-derivative CT would provide to Duke and its customers in the future, it would be appropriate and reasonable to incorporate such a unit into the calculation of avoided capacity costs, including to utilize a "midpoint" value between the cost of an F-Frame CT and an aero-derivative CT, as proposed by SCSBA Witness Burgess.

Relatedly, and of critical importance, Intervenors request that the Commission its finding in Order No. 2019-881(A) that "[e]ven if Duke were planning to construct [aero-derivative CT units] in the future, the Commission agrees with Duke and Power Advisory that the increased costs of constructing aero-derivative CTs would be caused by the intermittency and volatility of solar." Order No. 2019-881(A) at 102. In the first instance it bears noting that under the Commission's Order approving the SISC Settlement, solar QFs are already paying the estimated costs of solar

[13] For example, Duke Energy recently announced its plan to reach net zero carbon emissions by 2050. https://news.duke-energy.com/releases/duke-energy-aims-to-achieve-net-zero-carbon-emissions-by-2050

integration via the SISC, and it would be illogical and unfair both to require them to pay the SISC and also to penalize them in the calculation of avoided capacity costs for allegedly trigger integration expenses on Duke's system.

And as the Commission has recently ordered, parties to this proceeding will have the opportunity to participate in the forthcoming independent integration study process conducted pursuant to S.C. Code Ann. § 58-37-60. It is crucial that this integration study process is **independent** and is conducted objectively without prior input from the Commission or other parties as to the assumptions to be applied or outcomes ultimately reached in that process. As described above, a plan by Duke to include more flexible generation assets in the future should not be construed simply as a means of integrating third-party owned QF facilities onto the Companies' operating systems. As the forthcoming integration study process will surely address, there are a variety of issues, factors, analyses, and perspectives that will be considered. This includes, for example, Duke's decarbonization plans, the potential establishment of ancillary services markets, the integration of Duke's own existing assets, prior resource decisions made by Duke, other services that renewable resources are able to provide, among others. The Commission should not pre-judge this process or inadvertently suggest baseline assumptions that will be applied in the integration study process. For these reasons, Intervenors request that the Commission reconsider and/or remove its statement that "that the increased costs of constructing aero-derivative CTs would be caused by the intermittency and volatility of solar." Order No. 2019-881(A) at 102.

3. **The Commission should reconsider or clarify that Duke should also use its updated resource plans to calculate avoided capacity costs for Large QFs that are ineligible for the standard offer rate.**

In its Order, the Commission held that "[t]o accurately quantify DEC's and DEP's avoided costs for Large QFs not eligible for the Standard Offer, it is appropriate for DEC and DEP to…incorporate the most up-to-date inputs under the approved peaker methodology, in calculating a non-Standard Offer PPA QF's avoided energy rates." Order No. 2019-881(A) at 30. The Commission referred in its finding of fact to "avoided energy rates" but did not state that updated inputs under the peaker methodology would also be applied to the calculation of avoided capacity rates. Intervenors request that if the Commission maintains its original ruling that updated inputs should be used to calculate Large QF avoided cost rates, such updates should also apply to the calculation of avoided capacity rates in addition to the calculation of avoided energy rates. This practice would provide congruity as to the calculation of avoided energy and avoided capacity rates for Large QFs, and it would establish a more consistent benchmark for the determination of updates to the relevant avoided cost inputs. Consistent with prior practice, intervenors reserve the right to challenge any individual calculation of a Large QF avoided energy or avoided capacity rate that is made between avoided cost proceedings, but Intervenors submit that applying the relevant updated inputs in such calculations would be appropriate and reasonable.

4. Request for ruling on reconsideration

As discussed above, the Commission erred in: (1) adopting seasonal allocation weightings of 99% / 1% winter/summer for DEP and 70% / 30% winter/summer for DEC; (2) rejecting SCSBA Witness Burgess's recommendation to incorporate the EIA cost estimate of an aeroderivative CT unit when calculating the avoided capacity rate; and (3) failing to specify that the Companies should also incorporate updated resource plans when calculating the avoided capacity rates for Large QFs. On reconsideration, Intervenors submit that the Commission should adopt the seasonal allocation weightings proposed by SCSBA Witness Burgess, should incorporate the cost of an aeroderivative CT unit in the calculation of avoided capacity costs as recommended by SCSBA Witness Burgess, and should clarify that the Companies will apply updated resource plans when calculated avoided capacity rates for Large QFs. As discussed above, given the limited resources of the parties and the Commission, and the demands of implementing the other provisions of Act 62, it would not be prudent to order rehearing on this issue as a remedy for Duke's failure to meet its burdens under Act 62.

D. The Commission Should Reconsider its Rejection of Intervenors' Proposals for PPAs with Terms Longer than Ten Years.

The evidence in the record supports reconsideration of the Commission's decision to limit minimum PPA terms to ten years, as the Commission was granted full authority and flexibility to make such a finding and the record shows substantial evidence to support the proposals made by Intervenors in Proposed Orders.

Act 62 requires Duke to offer PPAs with a minimum term of ten years and gives this Commission the authority to approve terms longer than ten years "**to promote** [South Carolina's] policy of **encouraging** renewable energy." S.C. Code Ann. § 58-41-20(F)(2). This Commission is expressly authorized to "approve commercially reasonable fixed price power purchase agreements with a duration longer than ten years, which must contain additional terms, conditions, and/or rate structures as proposed by intervening parties and approved by the commission, including, but not limited to, a reduction in the contract price relative to the ten year avoided cost." *Id*. "The avoided cost rates applicable to fixed price power purchase agreements entered into pursuant to this item shall be based on the avoided cost rates and methodologies as determined by the commission pursuant to this section". Those rates were not approved until after the close of the evidentiary hearing in a proceeding under the Energy Freedom Act. *Id*.

Act 62 provides that intervenors may "propose" additional terms, conditions, and/or rate structures for PPAs longer than ten years in avoided cost proceedings, but does not specify any procedure for doing so. Act 62 was never intended to handcuff the Commission or prescribe an impractical requirement for Intervenors so that all details of any PPA in excess of ten years would have to be drawn out for approval during the hearing. Nor did the procedural orders issued by the Commission in this case provide such a procedure, or require that such proposals be entered into evidence (as opposed to, for example, being treated like motions, which must be supported by evidence but are not themselves evidence).

The fact that the Commission erred by determining that it did not have the authority to set tenor in excess of ten years due to an incorrect reading of the statute or by the Commission's assertion that evidence supporting such tenor was lacking from the record is clearly erroneous as further demonstrated by the testimony proffered by JDA Witness Rebecca Chilton, by the Report issued by Power Advisory, by the testimony of ORS Witness Horii, by Duke witnesses' own admissions, by Commissioner questions, and by the significant amount of time devoted to the topic at hearing. It is an completely counterintuitive result that contract tenor was discussed for such a significant portion of the hearings yet somehow was not properly before this Commission.

There are at least three lines of evidence the Commission either misapprehended or simply ignored in its ruling on this issue: first, evidence demonstrating that contracts longer than ten years are necessary to finance solar QFs and specifically requesting that the Commission approve contracts with terms longer than ten years; second, evidence related to the relative risks both posed and also *mitigated* by longer-term QF contracts; and finally, evidence related to specific contractual "terms, conditions, rates, and terms of length" requested by Intervenors that would satisfy the requirements of Act 62. Intervenors explain below why this evidence justifies reconsideration of the Commission's decision on contracts longer than ten years.

1. Necessity for contracts longer than ten years and Intervenors' request to authorize longer contracts

JDA Witness Chilton offered extensive testimony that a term in excess of ten years would be required to finance solar projects at the rates proposed by Duke, or even those proposed by

SCSBA. Ms . Chilton proposed, on behalf of the intervenors, that the Commission set the tenor of PPA contracts at a minimum of fifteen years with appropriate conditions as set forth in SC Code Ann. § 58-41-20(F)(1) to facilitate the opportunity of QFs to obtain financing in South Carolina. Tr. Vol. 1 at 334. Ms. Chilton noted in her testimony, by citing to the exact language of the statute, that setting the "additional terms" was within the Commission's discretion and further testified that it was not possible to ascertain what other terms might be both commercially reasonable and financeable absent a known avoided capacity and cost rate. *Id*. Ms. Chilton even proposed that, in order to meet the high standard for encouragement of renewables set by the legislature, the Commission direct that the terms of Duke's PPAs be set between 15 and 20 years, and that some PPAs be approved for longer than 20 years, all with the required statutory conditions as decreed by the Commission. *Id*.

Power Advisory noted that "[c]ontract length was an important issue in this proceeding, with a number of intervenors arguing that contract lengths longer than 10-years were essential if QFs were to secure regularly-available market-rate financing under the term employed by [Intervenor] Johnson Development Associates, Inc." Power Advisory Report at 34. Power Advisory expressly noted and agreed with JDA's argument that the "Act specifically allows the Commission to approve contracts beyond ten years *and* asks it to consider such durations." *Id*. (emphasis added). Power Advisory further specifically warned the Commission that, at rates significantly below those proposed by SCSBA, a ten year contract would not allow the financing of *any* PURPA projects in South Carolina. *Id*. Power Advisory went on to inform the Commission that Georgia had an average price of $36/MWh for 30-year contracts in its latest 510 MW RFP and that North Carolina, in 2019, contracted 550 MW of solar projects for an average price of $38/MWh with 20 year terms. *Id*. Power Advisory concluded that "**without longer contract**

length, the solar industry would not be able to finance PURPA projects in South Carolina." *Id*. Power Advisory even went on to offer an illustration for this Commission to simplify the concept that successful financing of projects in North Carolina and Georgia have required 20-30 year contracts with prices, on average, of $36-$38/MWh. *Id* at 34-36. This Commission erred when it ignored its statutorily-authorized, third-party consultant's evidence and opinion as to ten-year terms being insufficient unless the PPA price is set in excess of $40. *Id*.

2. Risks posed and mitigated by long-term QF PPAs.

As with other aspects of its ruling, the Commission premised its decision regarding the request for longer-term PPAs on a "balance" of "the interest of the QF industry and the risks to ratepayers of longer term fixed price contracts[.]" Order No. 2019-881(A) at 164.[14] Intervenors submit that the Commission's ruling disregarded critical evidence on this issue, and that the Commission should reconsider Order No. 2019-881(A) to recognize that (a) Duke significantly overstated the "overpayment risks" posed by long-term PPAs with QFs, and that (b) long-term QF PPAs in fact mitigate certain risks to ratepayers.

ORS Witness Horii spent a significant amount of time looking at and discussing contracts longer than ten years and concluded that, with accurately derived avoided cost rates, there "is no overpayment risk" to consumers from a PPA longer than ten years if avoided cost rates are calculated correctly. Tr. Vol. 2 at 546. Horii rebutted the testimony from Duke on ratepayer risk on longer term contracts by delving into the historically low natural gas prices and described how "locking in" an accurately-calculated rate protects ratepayers and is consistent with the statutory mission of the ORS. Tr. Vol. 2 at 543-548. Finally, due to the discussion surrounding setting PPAs

[14] Intervenors note that the Commission's framing of this issue is inconsistent with Act 62, which recognizes that it is not just "the interests of the QF industry," but "***the state's policy of encouraging renewable energy***," which must be weighed. S.C. Code Ann. § 58-41-20(F)(2).

at twenty years, ORS Witness Horii surmised that he expects to see avoided cost rates rise over the next twenty years from where they are today due in part to natural gas prices. Tr. Vol. 2 at 548.

Duke's Witnesses Brown and Snider both testified as to alleged "risks" posed by JDA Witness' Chilton's proposal for terms of 15 to 20 years. *See Generally* Hearing Vol. 2. Duke Witness Brown even admitted on cross-examination that he agrees with the statement "that the intervenors propose, **in these proceedings**, terms longer than ten years." Hearing Vol. 2 at 689-690. Duke Witness Brown acknowledged that the alleged $2.2 Billion "overpayment" by customers was not accurate, premature, and it is yet to be seen whether there would be a benefit or burden placed on ratepayers from the longer term contracts. Hearing Vol. 1 at 178. Finally, in support of Intervenors' proposal that the uncompensated curtailment currently in practice by Duke represents a decrement to the ten year avoided cost as required for the 20 year contract Intervenors' request, Duke Witness Brown thoroughly discussed that all QF projects in the DEC and DEP system are currently subject to situations where Duke does not "have to compensate the QF" and thus, is a built-in decrement. Hearing Vol. 1 at 85.

With respect to the issue of risk, the Commission erroneously concluded that, despite the undisputed record evidence concerning the risks to ratepayers of utility-constructed generation, "comparing the risks of utility-owned generation and QF generation is not reasonable or persuasive," apparently because the Commission has authority to regulate utilities' investments in generation but "does not have a similar right to oversee QF investments." Order No. 2019-881(A) at 45.

The Commission erred in finding that "There are no limits on the amount of QF capacity that can be developed prior to the Commission's next review of Duke's avoided cost rates, such that the opportunity for QF development—and the associated cost risk for customers—is impacted only by the accuracy of the forecasted avoided rates set in this proceeding." Order No. 2019-881(A) at 45. For one thing, Act 62 provides that utilities are only required to offer PPAs with minimum terms of ten years until the utility has executed interconnection agreements and PPAs with QFs located in South Carolina with an aggregate nameplate capacity equal to twenty percent of the previous five-year average of the electrical utility's South Carolina retail peak load. S.C. Code Ann. § 58-41-20(F)(2). After that level of penetration is reached, the Commission may change the minimum term of PPAs offered by the utilities, which will impact opportunities for QF development. Duke witness Mr. Brown also conceded that there are practical limitations on the ability of solar QFs in South Carolina to be developed, including in particular interconnection costs and delays, that will inhibit the development of additional solar QFs in South Carolina independent of Commission regulation.[15]

In its Finding of Fact related to risk, the Commission concludes that QF solar does not *necessarily* offset utility-owned generation because solar cannot *fully* replace non-solar generation as a capacity resource. Order at 2019-881(A) at 27. Intervenors contend that requiring QF solar to fully offset all utility-owned generation to provide a risk-hedge to ratepayers is an artificially high standard that is not supported by the evidence in the record. The Order also fails even to consider and appreciate the role of solar with storage in providing a further risk-hedge against utility-owned generation by displacing additional capacity needs beyond the capabilities of stand-alone solar facilities. Tr. Vol. 2 at 802.3 (Davis Surrebuttal).

The Commission's determination regarding risk furthermore relies on an unsupportably narrow view of what risks the Commission must consider under Act 62, and considered only the

[15] Tr. Vol. 1 at 104:16-105:2, 106:4-108:3 (Brown Cross-examination).

risks of overpayment supposedly presented by long-term PPAs with solar QFs. Order No. 2019-881(A) at 41. Intervenors acknowledge that risk from QF solar is an appropriate consideration for the Commission but dispute the Order's narrow scope on this topic. To comply with Act 62's mandate that it "strive to reduce the risk placed on the using and consuming public," S.C. Code Ann. § 58-41-20(A), the Commission must also consider the risks that exist for customers in the absence of that QF solar. The most obvious example of this relates to the construction of a new natural gas facility. Even if QF solar were not capable of avoiding the need for new natural gas generation capacity, it could nonetheless provide a fuel hedge against rising natural gas prices during the 35-year life of a gas plant. Therefore, the risk profile of QF solar must by necessity be considered in light of the utility's overall system characteristics and how QF solar impacts both the generation investments and operating characteristics of utility-owned generation. In the absence of such a complete risk assessment, the requirements of Act 62 related to risk and nondiscriminatory treatment of small power producers has not been satisfied.

In addition, the Power Advisory Report noted three important considerations as it relates to risk of overpayment from QF resources. First, the risk of overstating the actual cost of natural gas is low due to already low gas prices with additional declines of about 25 percent projected between 2015 and 2019. Power Advisory Report at 7. Second, the fact that avoided cost will be updated at least every two years significantly reduces the risk of overpayment. *Id*. Third, the PA Report highlighted that "there was general agreement that natural gas prices are at what some parties characterized as historic lows. This caused some parties, including Office of Regulatory Staff witness Mr. Horii, to argue that there's a greater risk of higher natural gas prices and ultimately higher avoided costs than a risk of lower natural gas prices and lower avoided costs. Ms. Chilton argued that the potential benefits of locking in lower QF purchase prices now is greater than the potential risk." *Id*. at 9. The Commission simply ignored these conclusions and observations from its own consultant in Order No. 2019-881(A).

The Commission's conclusion that limiting PURPA QF contracts to ten years due to the risk of overpayment for longer term fixed price contracts is at odds with other positions taken by the Commission in this Order. First, the Order misconstrues the basis for North Carolina's CPRE Program. This program is based on a long-term, 20-year avoided cost calculation that serves as a program cap, which is then combined with long-term, 20-year contracts that are resulting in *higher* contract rates and *longer* contract tenor than are allowed for in South Carolina under this Order. Tr. Vol. 2 at 795. Act 62, by contrast, requires that any contract for longer than ten years be set at a decrement to the ten-year avoided cost rate. S.C. Code Ann. § 58-41-20(F)(1). This statutory requirement means that beyond year ten, there will not be a higher avoided cost rate available to QF solar facilities. Again, this is in contrast to the North Carolina CPRE Program that relies on a 20-year avoided cost calculation, which explains why CPRE contracts are being signed at a PPA rate *higher* than DEC's ten-year avoided cost rate. It is also in contrast to the long-term cost projections that must be made when a utility builds a new generating resource that will remain in the rate base for significantly longer than a QF solar facility, thus creating substantial uncertainty around the lifetime cost and economic wisdom of such investments.

3. Evidence relating to Intervenors' proposed PPA terms

Order No. 2019-881(A) also ignores the ample evidence in the record, cited by Intervenors in their Joint Proposed Order, that support Intervenors' request that the Commission approve two specific concepts for PPAs longer than ten years. These concepts were (1) "a dispatchable PPA," with terms similar to contracts entered into by Duke under the CPRE program, with a term of up to 20 years, and (2) a PPA with an initial term of ten years at the ten-year avoided cost rate, with an option for the QF to renew for a further period of up to ten years at then-current avoided cost rates. Joint Proposed Order of South Carolina Solar Business Alliance and Johnson Development Associates (Nov. 8, 2019) at 90.

Both the record evidence and Power Advisory's Report supported SBA's proposal for a "dispatchable PPA." As described in Intervenors' Proposed Order, such PPAs would include the following attributes:

1) The utility would have the right to dispatch the output of the solar facility, without compensation, up to a defined percentage of the facility's projected annual output (5% for DEC and 10% for DEP); any dispatch in excess of those amounts would have to be compensated at full avoided cost rates;

2) The term of the contract would be a minimum of ten (10) years and a maximum of twenty (20) years, at the QF's election; and

3) The rates for the purchase of energy and capacity under the contract would be fixed at the ten-year avoided cost rate for Large QFs (as calculated in accordance with this Order). Because the ten-year avoided cost rates are substantially lower than twenty-year rates calculated based on the same inputs, the use of the ten-year rate provides a very significant discount to ratepayers as compared to the full avoided cost rates. Furthermore, the expected decrease in project revenues based on the utility's uncompensated curtailment rights satisfies Act 62's requirement that contracts longer than ten years include "a reduction in the contract price relative to the ten year avoided cost." S.C. Code Ann. § 58-41-20(F)(1).

Intervenors' Proposed Order at 81-82. The dispatch and curtailment provisions of the dispatchable PPA would be substantively identical to the Tranche 2 CPRE contracts Duke has currently proposed in North Carolina.[16] Otherwise the terms and conditions of such contracts would be identical to those approved for the Large QF PPA in this docket (except to the extent those provisions directly conflict with the dispatchability and curtailment provisions of the PPA).

[16] All technical requirements for the execution of dispatch instructions would be consistent with the conditions required of CPRE projects.

Duke witnesses testified extensively about the benefits to ratepayers of the 20-year PPAs entered into under the CPRE program***, at avoided cost rates higher than those approved by the Commission in this proceeding***. Like the proposed dispatchable PPA, these contracts give the utility limited curtailment rights that Duke "can utilize to optimize the system economically."[17] CPRE contracts allow 10% dispatch in DEP and 5% dispatch in DEC.[18] Additional curtailment is compensated.[19]

Duke Witness Brown also testified that a benefit of CPRE-style procurement is that a defined volume of projects are able to contract under the program.[20] Mr. Brown has previously testified to this Commission, and affirmed at the hearing, that contracts with these provisions are in the interest of ratepayers.[21] As confirmed by Duke during the evidentiary hearing, the "all-in" (energy and capacity, averaged across all time periods of production) rate at which winning CPRE projects contracted is $37.75 for DEC and $38.81 for DEP.[22] Duke Witness Brown's support of these contracts was not deterred by the fact – confirmed by Witness Brown – that CPRE projects may go online as late as July 2021.[23]

Duke Witness Holeman testified that whereas traditional non-dispatchable PURPA PPAs result in operational challenges for the utility, the limited dispatch rights offered in CPRE contracts provide "significant benefits" to system operations, which, from his perspective as a system operator, constitute "a key benefit of [the CPRE program's] design."[24] Mr. Holeman offered

[17] Hearing Vol. 1 at 81:18-22.
[18] Hearing Vol. 1 at 84:10-25.
[19] *Id*. at 85:1-20.
[20] Hearing Vol. 1 at 82:12-18.
[21] *Id*. at 82:19-22.
[22] *Id*. at 93:20-25.
[23] *Id*. at 94-95.
[24] Hearing Vol. 2 at 758.40 (Holeman Rebuttal).

extensive testimony at the hearing about the operational benefits of the flexibility offered by CPRE-style dispatchable solar PPAs.**[25]**

SCSBA Witness Davis testified that Duke admitted via press release[26] that its own customers are protected by the "20 years of cost-effective energy" as a result of the 20-year PPAs the Companies offer in North Carolina.[27] SCSBA Witness Davis further testified without contradiction that "Duke's CPRE contracts are for 20 years at an average fixed rate of around $38 per megawatt-hour for Tranche 1," while Duke's proposal in this proceeding "would result in a ten-year contract in South Carolina for closer to $30 per megawatt-hour."[28] SCSBA Witness Davis, on behalf of the intervenors, went on to offer testimony that supports dispatchable PPAs of 20 years in South Carolina just as are offered in North Carolina.[29]

Power Advisory noted, based on the testimony of Duke Witness Holeman, that the operational constraints driving periods of negative avoided cost periods could be mitigated with additional dispatch of solar resources, which can be provided by CPRE-style dispatchable solar contracts. Power Advisory further stated that it "believes that there are potential savings from such operating flexibility that could benefit customers and QFs and make it easier to operate the Companies system, which have not been adequately acknowledged."[30]

The Commission did not consider <u>any</u> of this evidence in Order No. 2019-881(A), concluding (erroneously) that "no intervening party to these proceedings elected to put into

---

[25] Hearing Vol. 2 at 772:15-773:18, 775:20-776:6.
[26] https://news.duke-energy.com/releases/competitive-process-yields-carolinas-biggest-one-day-collection-of-solar-projects-ever-significant-savings-for-duke-energy-customers
[27] Hearing Vol. 2 at 802.12 (Davis Surrebuttal).
[28] Hearing Vol. 2 at 795-796.
[29] *Id*. at 796
[30] Power Advisory Report at 13.

evidence a proposal that conforms to the mandates of S.C. Code Ann. § 58-41- 20(F)(1).”[31] Intervenors submit that this was an error that warrants reconsideration.

4. Request for reconsideration

From all of the above, and from the time and attention given to the duration of terms of PPAs by Commissioner questions, it was clearly erroneous for the Commission to conclude that the issue of PPAs in excess of ten years was not before this Commission. Reconsideration of Intervenors’ proposals for PPAs set at fifteen to twenty years, at the choice of the developer, with either a rate refresh at year ten or with an allowance for uncompensated curtailment to serve as the required decrement for the fixed-price fifteen to twenty year option is fully supported by the evidence in the record.

If the Commission adopts the avoided energy rates proposed by the SCSBA but continues to find insufficient evidence in the record to support that minimum lengths for PPAs be set in excess of ten years, Intervenors request this Commission hold a rehearing on this issue. Such rehearing should **only** serve to effectuate the legislative intent **if** the Commission rejects Duke’s and ORS’ rates as filed, adopts the avoided cost rates proffered by SCSBA, or adopts the $40 or greater avoided cost threshold put forth by Power Advisory. At that point evidence could be introduced as to the proposals already put forth by SBA, or as to an appropriate decrement to the ten-year avoided cost.

[31] To be clear, this provision of Act 62 does not include any “mandates” relating to when and how a proposed alternative PPA term must be proposed. It says only that the Commission may approve “commercially reasonable fixed price power purchase agreements with a duration longer than ten years, which must contain additional terms, conditions, and/or rate structures as proposed by intervening parties[.]”

III. REQUEST FOR CLARIFICATION REGARDING INTEGRATION STUDY IN ACCORDANCE WITH S.C. CODE ANN. § 58-37-60

In Order No. 2019-881(A), the Commission approved the SISC Settlement entered into between Duke, Intervenors, and CCL/SACE. Order No. 2019-881(A) at 122-123. The SISC Settlement provides in relevant part that:

> The Astrapé Study used to calculate the SISC presents novel and complex issues that warrant further consideration. Duke shall submit the study methodology and inputs to an independent technical review and include the results of that review and any revisions in its initial filing in the next avoided cost proceeding. **To the maximum extent practicable the independent review of the study methodology shall take into consideration the South Carolina Integration Study called for by S.C. Code Ann. § 58-37-60.** This process shall be subject to Commission oversight and comment from interested stakeholders. The parties agree that undertaking the work associated with the independent technical review is reasonable and appropriate to effectuate Act 62 compliance.

SISC Settlement at 3-4 (emphasis added). As indicated by this language, the parties to the SISC Settlement intended that the independent review of the Astrapé study would be an adjunct to, not a replacement for, the Integration Study called for by S.C. Code Ann. § 58-37-60. Nor did the Intervenors agree in the SISC settlement that any part of Duke's methodology for calculating integration costs was appropriate or methodologically sound – only that the proposed charges would serve as a reasonable approximation pending the results of the Act 62 integration study.

In its Order, the Commission stated that "To promote transparency, as provided for in the SISC Settlement, Duke should undertake an independent technical review of the underlying modeling, inputs, and assumptions of the Integration Services Charge prior to the next avoided cost proceeding." Order No. 2019-881(A) at 31-32. The Order did not expressly state that the Commission intends to initiate an integration study in accordance with S.C. Code Ann. § 58-37-60. Although the "independent technical review" process described above in the SISC Settlement was intended to incorporate the procedural requirements established by Act 62, for the avoidance of doubt, Intervenors request that the Commission clarify its intent to initiate an integration study pursuant to § 58-37-60 for DEC and DEP in South Carolina, which would ensure the application of the procedural requirements and protections afforded to stakeholders in such a process as contemplated by Act 62.

This express statement of intent would be consistent with the Commission's December 9, 2019 order in the Dominion Energy South Carolina avoided cost proceeding, in which the Commission ordered that it would

> initiate an integration study in accordance with South Carolina Annotated Section 58-37-60 in Dominion's balancing area. Once the integration study process set out in Section 58-37-60 is completed, we shall initiate a proceeding as allowed under S.C. Code Section 58-41-20(A) for the purpose of addressing Dominion's avoided costs, armed with the publicly reviewed evaluation of solar integration in Dominion's balancing area.

Docket No. 2018-184-E, Order No. 2019-847 at 21 (Dec. 9, 2019). If the Commission did not intend to initiate an integration study pursuant to § 58-37-30, Intervenors request that the Commission reconsider its decision to specifically provide for a study process pursuant to the requirements of Act 62.

IV. CONCLUSION

In light of the foregoing, Intervenors respectfully request that the Commission:

1. Reconsider its approval of DEC's proposed rate structure for Standard Offer avoided energy rates, and adopt SBA Witness Burgess's proposal to require DEC to include two additional pricing periods (in addition to the nine periods already proposed) and recalculate avoided energy rates accordingly.
2. Reconsider its approval of Duke's proposal to calculate avoided energy rates for Large QFs based on a set production profile, and instead Order that Large QFs, including those that incorporate energy storage, are eligible to contract at energy rates calculated using the Standard Offer rate structure and methodology.

3. Reconsider its adoption of the seasonal allocation weightings recommended by the ORS, and instead direct Duke to calculate capacity rates based on the seasonal allocations proposed by SBA Witness Burgess, of 42% / 58% winter/summer for DEC and 96% / 4% winter/summer for DEP.
4. Reconsider its Commission's rejection of Intervenors' proposal to factor in the cost of an aeroderivative CT unit when calculating the avoided capacity rate, and direct DEC and DEP to calculate avoided capacity costs using the avoided unit cost proposed by SCSBA Witness Burgess.
5. Clarify that to the extent DEC or DEP rely on updated "inputs" (including their resource plans) for the calculation of avoided energy rates for Large QFs, they must rely on the same updated inputs for calculating avoided capacity rates.
6. Reconsider its rejection of Intervenors' proposals for power purchase agreements with a duration of longer than ten years pursuant to S.C. Code Ann. § 58-41-20(F)(1), order that Duke submit form PPAs reflecting those concepts (as described herein) for review, comment, and approval by the Commission; and upon approval require that Duke offer to enter into such PPAs with solar QFs in compliance with Act 62;
7. Reconsider its conclusion that risks associated with construction of public utility generation are not necessarily offset by QF solar generation; and
8. Clarify that it intends to initiate an integration study in DEC's and DEP's service territories, as authorized by Act 62.

If the Commission declines to reconsider its rejection of Intervenors' proposals for PPA terms with a duration longer than ten years, Intervenors request, in the alternative, that the

Commission grant limited rehearing and allow the presentation of additional evidence by the parties on that issue.

Respectfully submitted, this 13th day of January, 2020.

NELSON MULLINS RILEY & SCARBOROUGH LLP

By: /s/James H. Goldin
James H. Goldin
SC Bar No. 100092
E-Mail: jamey.goldin@nelsonmullins.com
1320 Main Street / 17th Floor
Post Office Box 11070 (29211-1070)
Columbia, SC 29201
(803) 799-2000
Attorney for Johnson Development Associates, Inc.

By: /s/Weston Adams, III
Weston Adams, III
SC Bar No. 64291
E-Mail: Weston.adams@nelsonmullins.com
1320 Main Street, 17th Floor
Post Office Box 11070 (29211-1070)
Columbia, SC 29201
(803) 255-9708
Attorney for South Carolina Solar
Business Alliance, Inc. and
Johnson Development Associates, Inc.

KILPATRICK TOWNSEND & STOCKTON LLP

By: /s/Benjamin L. Snowden
Benjamin L. Snowden
NC Bar No. 51745
E-mail: bsnowden@kilpatricktownsend.com
4208 Six Forks Rd., Suite 1400
Raleigh, NC 27609
(919) 420-1719
Attorney for South Carolina Solar Business Alliance
Admitted pro hac vice